

## Datasheet AS PC04



AS PC04 composite bearing material is made of carbon fiber fabric immersed in phenolic resin. AS PC04 is a high performance material, formed with advanced technology at specific temperature and pressure. The material is extreme tough and can withstand the high surface pressure at high temperatures. AS PC04 has good wear resistance and is suitable for operating under dry, wet and lubricated circumstances. AS PC04 has a low coefficient of friction, can withstand edge loading and has virtually no swell in water. ASEC Kunststoffen B.V. recommends to provide the counter faces with a hardened surface to protect it from wear.

AS PC04 is produced under approval of ISO 9001 for all manufacturing operations and tested in laboratories.

AS PC04 is available in sheet with thickness of 6 to 40 mm. Bigger sizes on request.

AS PC04 is applied in steel industry, steel structures, machines, cranes, transport vehicles, hydraulic cylinders and other equipment.

- (1): Hardness rockwell: HRM.
- (2): Hardness rockwell: HRC.
- (3): Coefficient of friction dynamic: oil/grease.

Material	
Material	Composite

Availability	Unit	Value
Min. inside diameter	mm	16
Max. outside diameter	mm	2000 (bigger diameter possible made of arced segments)
Length standard	mm	500 (longer on request)

Physical Properties	Test Standard	Unit	Value
Density	ASTM D792	g/cm <sup>3</sup>	1.48
Max. swell in water at 20 °C	ASTM D570	%	0.1

Mechanical Properties	Test Standard	Unit	Value
Compressive strength static	ASTM D695	MPa	450
Compressive strength dynamic	ASTM D695	MPa	110
Module of elasticity	ASTM D695	MPa	6000
Tensile strength	ASTM D3410	MPa	-
Shear strength	ASTM D3410	MPa	-
Impact strength	ASTM D256	kJ/m <sup>2</sup>	-
Hardness rockwell	ASTM D785	HRM/HRC	108 <sup>(1)</sup>

Thermal Properties	Test Standard	Unit	Value
Thermal expansion	ASTM D696	*10 <sup>-5</sup> / °C	-
Min. working temperature		°C	-40
Max. working temperature		°C	180
Intermittent working temperature		°C	200

Friction Properties	Test Standard	Unit	Value
Coefficient of friction dynamic	Pin-on-ring	Dry against steel	0.13
Max. sliding speed	Pin-on-ring	m/s	-
Max. pv load dry	Pin-on-ring	MPa*m/s	-
Max. pv load oil lubricated	Pin-on-ring	MPa*m/s	-
Max. pv load regular greased	Pin-on-ring	MPa*m/s	-
Wear factor	Pin-on-ring	*10 <sup>-9</sup> m <sup>2</sup> /N	-